



John. C. Stennis Space Center



ASIS

O C E A N A I R S P A C E I N D U S T R Y S I T E

VOLUME 1, ISSUE 2

www.ssc.nasa.gov

SUMMER 2004



*Commemorative
Edition*

From the

D irector's esk

STENNIS SPACE CENTER DIRECTOR

Adm. Thomas
Q. Donaldson V
USN (Ret.)



Judging from the many positive comments I have received on the first issue of OASIS in April, I believe this is, and will continue to be, a newsletter Stennis Space Center (SSC) can be proud to call its own.

In April I mentioned that NASA is undergoing many changes in our efforts to Return to Flight, complete our international commitments to the International Space Station and attain the vision of returning to the Moon, Mars and beyond. Now, the pace of those activities is gaining speed with the recent report from the President's Commission on Implementation of United States Space Exploration Policy.

Following closely behind the release of the report, NASA Administrator Sean O'Keefe discussed the Transformation of NASA during a NASA Update on June 24. I echo Administrator O'Keefe's comments that the President's Vision and the Commission's recommendations provide us with a guide that will transform NASA to meet the challenges of exploration. This transformation is already under way with NASA's mission areas being streamlined from seven Strategic Enterprises to four Mission Offices: Exploration Systems, Space Operations, Science and Aeronautics Research.

Organizations tend to transform in one of three ways: (1) they re-organize (see Page 4); (2) they incorporate or respond to "disruptive" technology (SpaceShipOne comes to mind); and (3) they find "new" missions (President Bush gave us several on Jan. 14). As you can see, today's NASA is changing through all three mechanisms.

Here at SSC, there have also been numerous changes and events in the past three months. An Organization Tiger Team was formed to evaluate options of how we might better align the center with supporting the Vision for Space Exploration. This team is comprised of 15 people representing every major activity within our organization. They are now looking at options to support the Transformation of NASA.

Many of you participated in the visit by Behavioral Science Technology, Inc., (BST). This work is part of the efforts to shape the future of NASA by helping us understand key safety cultural issues. The next step in this process is voluntary, one-on-one or small group interviews with representatives of BST. If contacted to schedule an interview, I urge you to participate in this endeavor. The information you provide will be used to develop programs that will help us better communicate and plan as an organization.

We have also had lots of fun during the past three months. In addition to the ever-popular crawfish boil and shrimp boil, the center had a very successful Take Our Children To Work Day on June 8 with approximately 250 children taking part in the various activities.

I still believe SSC and NASA have a bright future in store. However, as we move forward in accomplishing our goals, it will require the efforts of everyone at SSC. Remember, change is inevitable but necessary. And, although some may view change as threatening, it remains a vital element of progress.

Respectfully,

On the cover

The cover illustration depicts an "Eagle-eye" view of the Apollo 11 launch (left), inset with the official portrait (top right) of the Apollo 11 crew – Neil Armstrong, Michael Collins and Edwin "Buzz" Aldrin. The next generation of explorers (bottom right) include children from StenniSphere's 2004 Astro Camp who launch their own rocket as they look toward the future of space exploration.

Stennis Space Center testing hybrid rocket motor



A hybrid rocket motor designed by Lockheed Martin's Michoud Operations was successfully tested recently at Stennis Space Center's E-Complex. The motor uses liquid oxygen to burn solid fuel. The test met all objectives, and the Stennis team finished the job two days earlier than their deadline.

A hybrid rocket motor underwent a successful test firing at NASA Stennis Space Center (SSC) recently, using a motor similar to one used in a sounding rocket.

Sounding rockets take their name from the nautical term "to sound," which means to take measurements. The rockets carry payloads of various weights to altitudes of more than 800 miles.

Hybrid motors are comparable to the Solid Rocket Motors (SRMs) used as sounding rockets or rocket boosters because they both use solid fuel – unlike Liquid Rocket Engines, which are fueled by liquid hydrogen or kerosene. But unlike SRMs, the combustion rate of hybrid motors can be controlled.

Once SRMs fire, they continue to burn until the fuel expires. Hybrid motors use liquid oxygen to burn the solid fuel, which provides thrust. The amount of oxygen used can be controlled, which means the rate of combustion (or thrust) can be controlled – even turned off.

Lockheed Martin Space Systems Co. – Michoud Operations designed and fabricated the motor tested at SSC. The motor demonstrated critical hybrid rocket motor fuel technologies.

"The testing at Stennis demonstrated

the structural integrity of our fuel-grain design as we continue to advance the state of the art for hybrid rocket motors," said Tim Knowles, Lockheed Martin's principal investigator for hybrid rocket motors.

The fuel of the motor tested at SSC is a rubberized compound, HTPB (hydroxyl terminated polybutadiene). The motor

was fired for the full planned duration and met all test objectives.

"We made a lot of progress to get to this point," said Robert Ross, project manager of SSC's Hybrid Technology Test Project. "The Stennis team did an outstanding job. We had a critical deadline to get the test done, and our team finished the job two days early."



The HTTP test team at Stennis Space Center include, from left, (front row) Project Manager Robert Ross, Danny Guin, David Lorange, Nate LaBorde, Craig Chandler, (second row) R.B. Shaw, Chad Ladner, Fred Vaughn, Jared Grover, Ryan Roberts and Chuck Bopp. Not pictured are Christine Powell, Gary Bennett, David Harriel, Chip Ellis, Steve Taylor and Dan Brady.

O'Keefe unveils plan for NASA transformation

Administrator Sean O'Keefe announced June 24 a transformation of NASA's organization structure designed to streamline the agency and position it to better implement the Vision for Space Exploration.

"Our task is to align Headquarters to eliminate the 'stove pipes,' promote synergy across the agency, and support the long-term exploration vision in a way that is sustainable and affordable," said Administrator O'Keefe. "We need to take these critical steps to streamline the organization and create a structure that affixes clear authority and accountability."

This transformation restructures NASA's Strategic Enterprises into Mission Directorates to better align with the Vision. It also restructures Headquarters support functions and clarifies organizational roles and responsibilities. The changes become effective Aug. 1.

The agency will also redefine its relationships with the NASA field

centers by developing clear and straightforward lines of responsibility and accountability. Specific Mission Associate Administrators will be assigned as Headquarters Center Executives. They will have oversight of field center performance in implementing agency policies and programs. The Associate Administrator for Institutions and Management will address field center infrastructure concerns.

"This transformation will be an evolutionary process, exploring new ways to move forward and implement change. We'll also be engaging other government agencies, industry, academia and the international community to assist us in developing the tools and processes we need to successfully advance the Vision for Space Exploration," added Administrator O'Keefe. "Doing so will enable us to take the next bold steps into space and rekindle the innovation and entrepreneurial skills that is our legacy to humankind."

President's Commission Report

The President's Commission on Implementation of U.S. Space Exploration Policy released its report June 16. Titled "A Journey to Inspire, Innovate, and Discover," the report provides findings and recommendations for implementing the Vision for Space Exploration set forth by President George W. Bush.

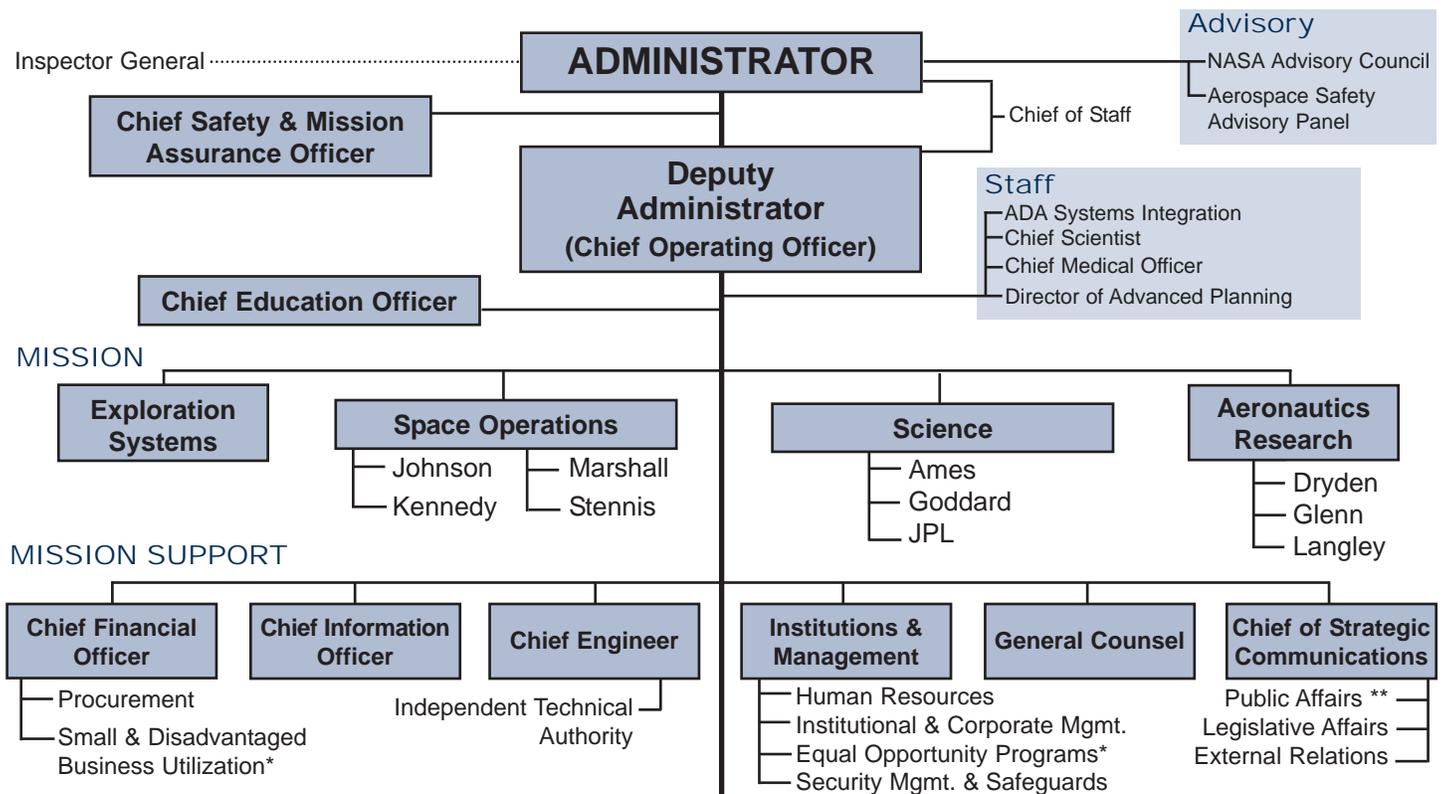
The nine-member commission, chaired by Pete Aldridge, issued eight findings with recommendations for each of the findings.

The commission stated in its report, "While discovery is the goal of space exploration, the commission is certain that the benefits here on Earth will make the journey at least as important as the destination.

"Going to the Moon, Mars, and beyond may be our destination and our goal, but the journey toward this goal and what it means here on Earth is what really matters. Space exploration is an opportunity to invest meaningfully in America. It is a much-needed opportunity to revitalize our industrial base and nurture the skills needed to drive a new generation of American innovation," explained the commissioners in the report.

NASA Administrator Sean O'Keefe said, "The commission's recommendations for this nation's Vision for Space Exploration will help propel us into a prosperous, secure and bright future."

Transformed Structure



*In accordance with law, the OEOP and SDBU maintain reporting relationships to the Deputy and Administrator

**Including a new emphasis on internal communications

New data on NASA Web site improves Earth science efforts

An update to the data on a NASA Web site could change the way local governments plan or the way teachers educate - maybe even the way video games look.

The update is a group of data sets (collections of electronic graphic information in which each pixel can be manipulated) available through a public Web site of NASA's Earth Science Applications (ESA) Directorate at Stennis Space Center. ESA offers images of nearly any spot on the globe taken by the Landsat satellite - free to the public. Until recently, users could only view and download data sets taken by the satellite in 1990. Now they can see higher resolution images from 2000, which means more detail.

"Instead of seeing just your neighborhood, which was the most detail you could get with the 1990 images, now you can see streets and structures," said Tom Stanley, ESA's technical manager for the project.

Comparing the two sets of images can help coastal surveys in Louisiana see how much land mass has been lost to erosion. Or it can show urban planners how their communities have sprawled, helping them project infrastructure upgrades.

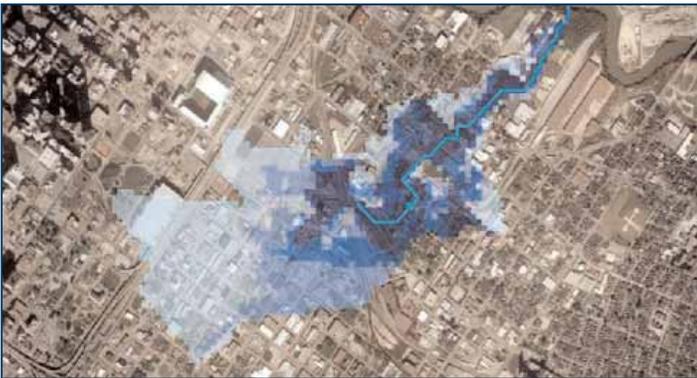
"Folks from all over the world have written to tell us they're using the images to make travel maps, to illustrate books and business brochures," said Project Manager Troy Frisbie, technical management aerospace technologist with ESA.

To view the new data sets, visit the Web site <https://zulu.ssc.nasa.gov/mrsid>.



This 2000 image of the greater New Orleans area and Lake Pontchartrain shows considerable detail, including barges on the Mississippi River and Louis Armstrong New Orleans International Airport (the pink, L-shaped object in the center).

NASA technology enhances local parish's flood response



REACT, a computer-based system illustrated here, helps emergency management officials anticipate where flood waters will rise. In the image above, the blue line in the center depicts a stream projected to overflow its banks.

A South Louisiana parish can now react better to rising flood waters thanks to a combined effort of NASA, local government and a small business.

In an effort to avoid the tragedies and costs that ride in the wake of frequent floods, the St. Tammany Parish Emergency Management Operations Center (EMOC) turned to NASA for help through its Technology Development and Transfer Office (TDTO) at Stennis Space Center (SSC).

SSC, the St. Tammany Parish EMOC and a small geospatial applications company, NVision Solutions, recently offered the parish a new line of defense called REACT: Real-time Emergency Action Coordination Tool.

REACT is a computer-based system developed by NVision to support St. Tammany Parish's EMOC flood mitigation efforts. Under a NASA Dual-Use Development contract at SSC, St. Tammany Parish presented a problem that needed an accurate and real-time response. NASA offered expertise in remote sensing applications, and NVision developed a Web-based, real-time Geographic Information System (GIS) solution.

The system collects meteorological data from various sources around St. Tammany Parish and combines it with other information (roadways, elevation, population, property ownership, flood levels and damage estimates) in a GIS.

The meteorological data are transferred to the EMOC's computer system, where they are analyzed to provide a visual picture of the data. As the water rises, REACT captures all vital statistics about the next area under threat, such as residents' phone numbers, evacuation routes and critical facilities. Emergency responders can begin calling residents with warnings, planning alternate evacuation routes and evacuating nursing homes and schools before roads are blocked.

NVision helped cut REACT's cost and development time by building on existing commercial off-the-shelf programs, making it more efficient, more reliable and easier to use.

"Potential for this system does not stop when the floodwaters recede," said NVision Vice President Craig Harvey of Slidell. "It was developed to support a variety of impact models such as fires, hazardous material spills, airborne biochemical agents and many others important to first responders."



The Eagle has lan

SSC was key player in America's journey to the Moon

"That's one small step for man, one giant leap for mankind." The national effort that enabled Astronaut Neil Armstrong to speak those words as he stepped onto the lunar surface July 20, 1969, fulfilled a dream as old as humanity.

No nation had ever demonstrated its aspirations and abilities as dramatically as the U.S. did in accomplishing the feat of landing humans on the Moon. More people on Earth watched that first small step than had witnessed any prior event.

NASA's scientists and engineers put forth unprecedented effort to accomplish nine manned flights to the Moon, six of which involved landing on the crater-filled lunar surface. The scientific results of the Apollo program were staggering, and the human achievement

came when the nation needed to prove beyond

doubt its technological superiority.

People who lived on the Mississippi coast and in Southeast Louisiana during the Apollo era witnessed firsthand the groundwork laid to achieve these historic milestones. The beginning of NASA Stennis Space Center (SSC) came just five months after President John F. Kennedy's May 1961 challenge to send Americans to the Moon before the end of the decade. SSC's creation provided the nation the testing site for the rocket components that took Americans to the Moon and changed the world; it also forever changed the communities surrounding the center.

People living in the area at the time recall the impact that the completion of the NASA test facility had on their hometowns.

"The main thing I remember was the huge scale of construction," recalled longtime employee Jeanne Kellar, InDyne Inc.'s documentation coordinator for NASA's central engineering files. "It was just everywhere you looked – in town, around the site, the interstate. And the people came from everywhere: New York, Colorado, Florida, Alabama, you name it. To a small-town girl like me, it really was something to meet all those people."

The center's construction in Hancock County, begun in 1963, was the largest building project in Mississippi and second largest in the U.S. at that time. In 1966, the facility built to test launch vehicles for the Apollo program was completed, opening as the Mississippi Test Facility (MTF). The project's total estimated cost in 1962 was \$250 million.



*The Saturn V MTF was rem
– Boyc*

Director of Propulsion
at SSC, 1994

was completed successfully o

"I can remember when w
here," said Pat Mooney, who
SSC this summer. "The phras
by so few' really applies to th

Both rocket boosters for t
first-stage S-IC and the second
to travel from their assembly
Plant in New Orleans any wa
Pearl River. Because the Mis
way departments' engineers k
rockets of the future would b
under construction at that tim
East Pearl River. NASA cont
road fund to help build it.

Workers dredged 15 mile
Intracoastal Waterway, dug 7
site and built a Panama Cana
nect the river and the interior

Despite a 1963 salt marsh
long, soggy 1964 spring that
the Saturn V test site, the test



I was planning to retire, but now I'm going to stay and help NASA go back (to the Moon).

– Jeanne Kellar

Documentation coordinator for NASA's central engineering files



May 1961

"I believe this nation should commit itself to achieving the goal, before this decade is out, of landing a man on the Moon and returning him safely to the Earth."

President John F. Kennedy



May 1962



NASA announces decision to establish national rocket test site in Hancock County, Miss. Officials raise the American flag for the first time at what is now Stennis Space Center (SSC). Included are, second from left, Dr. Wernher von Braun, director; and third from left, Capt. William Fortune, first site manager.

May 1964



Construction begins in the test area, leaving giant craters where the test stands will be built. In 1964, it was the second-largest construction project ever undertaken in the U.S.



ded



effort at remarkable. e Mix Test Directorate 1-2002

“The Saturn V effort at MTF was remarkable,” said retiree Boyce Mix, who directed the Propulsion Test Directorate for eight years. “The construction, activation and testing

over a period of a few years.” “We had one phone line out will mark his 39th year at use ‘Never was so much done at time.’

the Apollo vehicles – the mid-stage S-II – were too big station at Michoud Defense any other than by barge up the Mississippi and Louisiana high- had no idea how big the e, the Interstate 10 bridge e was built 92 feet above the tributed \$4.5 million to the

s of the East Pearl to the 5 miles of canals inside the l-sized lock system to con- canals.

n mosquito plague and a threatened to slow work on facility was completed in

only three years.

“I only had two Saturdays off in 1967,” Kellar said. “Everybody was working six days a week, and no one complained. We knew we had a deadline to meet. We were going to make it work, and we were glad to do it. We were just one big team. We were and are very proud to have been a small part of our going to the Moon.”

The center conducted the first static test firing of the Apollo/Saturn V second-stage prototype engine in April 1966, and less than a year later began testing the first and second stages of the rocket. The effects of the first tests for the huge stages of the Saturn V were felt far and wide. Residents recall that the reverberations from testing the cluster of the five huge Saturn engines broke windows as far away as Mobile, Ala.

Dianne Bulen, now administrative officer in SSC’s Propulsion Test Directorate, came to work at the center in 1965 as a secretary for Gordon Artley, who oversaw the task of getting the facility up and running.

When we watched those astronauts walk on the Moon, you can’t imagine the feeling of pride, to know you had a part in getting them there.
– Dianne Bulen
Administrative Officer,
Propulsion Test Directorate



world was going to explode. The ground shuddered, windows rattled all the way to Slidell. And when we watched those astronauts walk on the Moon, you can’t imagine the feeling of pride, to know you had a part in getting them there.”

That testing led to one of humankind’s most phenomenal achievements when Apollo 11 Astronauts Neil Armstrong and Buzz Aldrin set foot on the Moon. It also spawned the motto, “If you want to go to the Moon, first you’ve got to go through Hancock County, Mississippi.”

“I hope we can somehow recapture that sense of excitement,” said Mooney, now NASA’s program manager for the Space Shuttle Main Engine project office at SSC. “Everybody ought to have that sense of accomplishment. I don’t think space exploration has even cracked the shell of its potential.”

On Jan. 14, 2004, President George W. Bush called on NASA to “gain a new foothold on the Moon and to prepare for new journeys to the worlds beyond our own.” This Vision for Space Exploration seeks to return humans to the Moon by 2020, then use it as a steppingstone to Mars and beyond.

“I was glad to hear President Bush say he wants America to go back to the Moon,” Kellar said. “I think we should. I was planning to retire, but now I’m going to stay and help NASA go back.”

I don’t think space exploration has even cracked the shell of its potential.

– Pat Mooney

Program Manager, Space Shuttle Main Engine Project Office at SSC

“When the first test was conducted,” she said, “I thought the



March 1967



The first stage of the huge Saturn V rocket is lifted by crane for installation into the B-2 test stand at SSC.

August 1967

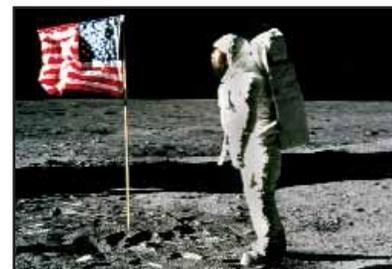


Both the first and second stages of the Apollo program’s Saturn V rocket were tested at SSC. A cluster of five F-1 engines provided over 7.5 million pounds of thrust to launch the giant rocket.

July 16, 1969



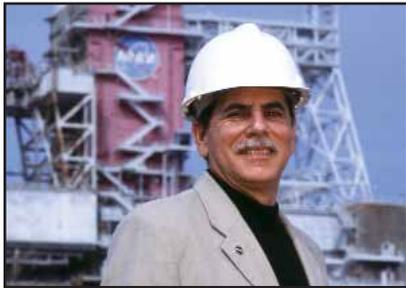
July 20, 1969



Apollo 11 launches July 16, and successfully lands on the Moon July 20. Astronauts Neil Armstrong and Buzz Aldrin walked on the lunar surface, safely transported thousands of miles by a space vehicle whose boosters were tested at SSC.

Imaginations sparked; dreams fulfilled

The Apollo program helped inspire those who work for NASA today. Employees recall how accomplishments of the Apollo era motivated them to pursue careers in America's space program.

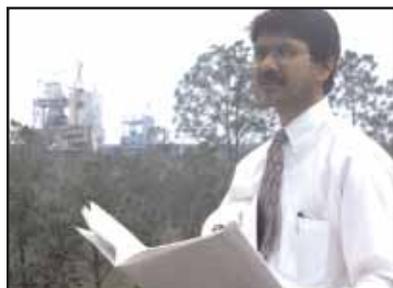


I remember watching, on a black-and-white TV with a snowy picture, the first footstep being made on the Moon. I saw that and said to myself, 'Wouldn't it be nice to work for NASA?'

– Miguel Rodriguez, left
Director, Propulsion Test Directorate at SSC

I wasn't born when they landed men on the Moon, but the reality and enormity of what they accomplished still makes me shake my head in wonder.

– Christine Powell, right
Lead, NASA Systems Engineers



It was definitely a defining moment for me in choosing this profession. At age 6, I watched the 'snowy' images of the first Moon walk on black-and-white TV broadcast in Bahrain. Right then, I was compelled to make space technology my future.

– Shamim Rahman, left
NASA's chief engineer for the
Propulsion Test Directorate at SSC

I remember watching footage of the Moon landing in grade school during a history lesson. That's when I decided I wanted to be a part of the NASA team.

– Karma Snyder, right
NASA Aerospace Technologist



The next generation of explorers

Astro Camp's summer 2004 mission, Trading Spaces: From Earth to the Moon, focuses on the Apollo 11 anniversary and inspires children to embrace the future of space exploration.



I think it's pretty interesting that astronauts got to see the dark side of the Moon. They found craters and rocks. I'm thinking about being a pilot, and I think it would be cool to go to Mars and live there.

– Jared Williams

What Neil Armstrong said about walking on the Moon, 'This is one small step for man and a giant leap for mankind,' means that he took a small step but it showed all the hard work that everyone did to get there.

– Xuanxia Lee



It's fun learning about when we went to the Moon. I pretended like I was an astronaut. I think it will be fun and exciting to go back to the Moon and even to Mars.

– Jerrad Hines

I think that on Mars houses might be made out of metal. There is no gravity and no oxygen so we would have to wear spacesuits all the time.

– Kali Albright



Back to the Moon . . . and beyond!

The Vision for Space Exploration

On Jan. 14, 2004, President George W. Bush called on NASA to "gain a new foothold on the Moon and to prepare for new journeys to the worlds beyond our own."

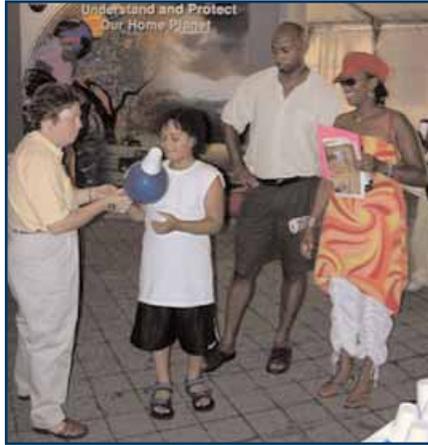


Goals

- Develop a new spacecraft, the Crew Exploration Vehicle
- Robotic missions to the Moon by 2008
- Humans return to the Moon by 2020
- After the Moon, human missions to Mars and beyond

Astro Camp hits the road for huge Baltimore crowd

StenniSphere's Astro Camp traveled to Baltimore, Md., June 18-20 for the annual African-American Heritage Festival held at Camden Yards baseball field. More than 2,500 children participated in Astro Camp activities. They made and launched air transportation rockets while learning about the principles of rocketry and Newton's Laws of Motion. They also were entertained by StenniSphere's astronaut mascot who hammed it up and posed for photographs with attendees.



Minority institutions attend grant workshop

Stennis Space Center hosted a two-day Minority University Grants and Contracts workshop in June. The workshop was part of an effort to increase partnerships between NASA and minority institutions. Representatives from colleges and universities in Mississippi, Louisiana and as far away as Puerto Rico attended the conference.

Astro Camp takes part in Space Day at Jackson Planetarium

StenniSphere's Astro Camp traveled to Jackson, Miss., on May 1 to take part in a Space Day celebration at the Russell C. Davis Planetarium. More than 1,000 children were inspired about space exploration, science and math by participating in Astro Camp activities. Space Day is an annual event celebrated worldwide.



FMA Live! rock 'n' roll show brings science to local schools

Honeywell brought "FMA Live! Where Science Rocks," a dynamic rock-and-roll education program, to students in grades six through eight across the nation. The initiative visited Bay-Waveland Middle School, Hancock Middle School and Stone County Middle School and High School, in May.

Dr. Adena Loston, NASA's Associate Administrator for Education, kicked off the state tour by inspiring Bay-Waveland Middle School children to pursue careers in science and technology.

"FMA Live!" teaches Sir Isaac Newton's Three Laws of Motion and the Universal Law of Gravity. The program is named after Newton's Second Law (Force equals Mass times Acceleration).

INSPIRING
the next
generation . . .
as only NASA can

Celebrating Apollo 11:

- A new exhibit in July to commemorate the 35th anniversary of Apollo 11, which landed the first humans on the Moon in 1969.
- A new stage play, *The Eagle has Landed*, produced in partnership with WINGS, the performing arts division of the Lynn Meadows Discovery Center in Gulfport, takes an upbeat look at Apollo 11 and the vision for the future of space exploration. The play runs for three weeks, starting July 20.
- The planting of a "Moon Tree" July 20 in honor of Apollo 11 on the grounds in front of StenniSphere. Moon Trees are grown from seeds carried to the Moon by former Coast resident and Astronaut Stuart Roosa on Apollo 14.



AROUND



Take Our Children to Work Day



NASA Stennis Space Center's annual Take Our Children to Work Day drew nearly 250 children to the site on Tuesday, June 8. The participants watched cryogenics and rocket motor demonstrations, made air transportation rockets and met SSC Center Director Adm. Tom Donaldson V, USN (Ret.) and Astronaut Heidemarie Stephanyshyn-Piper.

SSC oceanography programs represented at Capitol Hill



Naval Research Lab-Stennis Detachment, and the Naval Meteorology and Oceanography Command were on hand to explain and promote the 22 oceanography programs located at SSC.

Four Stennis Space Center (SSC) agencies exhibited at Capitol Hill Oceans Week in Washington, D.C., June 9. The University of Southern Mississippi, the Gulf of Mexico Program, the



NVision at SSC brings NASA technology to the farm

NVision has developed a Precision Agriculture application/tutorial under an agreement with the University of Mississippi and NASA. The application is based on industry standard Environmental Systems Research Institute's Map Objects architecture. The program includes an application for viewing various forms of provided data, a remote sensing tutorial, a Geographic Information Systems tutorial, a basic data package and extensive help files. NVision Solutions provides a download site for Future Farmers of America and 4-H members at www.nvisionsolutions.com/FFA. This service is provided free of charge. For more information, contact Craig Harvey at (228) 688-2205 or send e-mail to charvey@nvs-inc.com.

Chip Jones named Michoud resident manager

NASA has promoted Clyde S. "Chip" Jones to resident manager at the NASA Michoud Assembly Facility in New Orleans. Jones will be responsible for overseeing Space Shuttle External Tank manufacturing and facility operations at Michoud for the Marshall Space Flight Center.



Chip Jones

Most recently, Jones has been supporting External Tank Return to Flight activities at Michoud. Jones began his NASA career in 1981 and has held increasingly responsible positions including team lead for metallic processes for the Super Lightweight Tank built at Michoud and for development of Friction Stir Welding for the External Tank.

Science center plans unveiled

A next-generation science center on well-traveled Interstate 10 will instill enthusiasm for science in future generations and enhance the public's science literacy.



From left, former SSC Director Roy Estess, MAST board member Leo Seal, and current SSC Director Adm. Thomas Q. Donaldson V, USN (Ret.), were on hand for the INFINITY unveiling, held May 6 at SSC.

INFINITY at NASA Stennis Space Center will engage visitors of all ages in exploring the earth, oceans and space through the work of scientists, engineers and pioneers at work every day at this unique federal and commercial city.

MAST Inc., a charitable organization formed by key community leaders to partner with NASA and SSC to develop this premier science center, recently awarded contracts for the detail exhibition and facility designs. The \$35 million, 59,000 square foot facility is scheduled to open early in 2007. For more information contact Tommie Staten, MAST Inc., at (228) 688-1393.

Gulf Guardian winners announced

The Gulf of Mexico Program recently announced the 2004 Gulf Guardian Award winners. The winners will be awarded Sept. 22 at the Southern States Environmental Conference and Exhibition in Biloxi, Miss. A complete list of all winners and a description of the projects, programs and individuals involved is available on the program's Web site at <http://www.epa.gov/gmpo/gulfguard.html>.



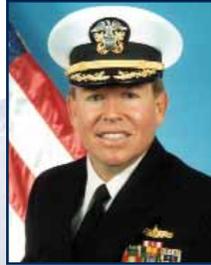
The Gulf of Mexico Program partnership developed the Gulf Guardian awards in 2000 as a way to recognize and honor the businesses, community groups, individuals and agencies that are taking positive steps to keep the Gulf healthy, beautiful and productive.

OUR WORLD

NAVO welcomes Best as new commanding officer

The Naval Oceanographic Office (NAVOCEANO) welcomes aboard new Commanding Officer Capt. Jeffery Best. Best assumed command of the 1,100-employee oceanographic office in a July 2 ceremony.

He reports to NAVOCEANO at the John C. Stennis Space Center after serving at the National Defense University in Washington, D.C.



Capt. Best

Best replaced former interim Commanding Officer Capt. Parker Lumpkin who has been selected to serve as the United Nations' Senior U.S. Military Observer in Kosovo.

SSC weather sailors celebrate 80 years of service

Personnel at the Naval Meteorology and Oceanography Command's headquarters at Stennis Space Center celebrated the 80th birthday of the Navy's aerographer's mate rating on July 2.

Aerographer's mates, or AGs, are the Navy's enlisted weather observers and forecasters. The rating was created on July 1, 1924, to support the then-new naval aviation community.



Today, approximately 1,300 AGs support every naval warfare area. They are located at shore activities and ships at sea around the world. Pictured is Master Chief Aerographer's Mate Jon Johnston, the command's senior enlisted advisor.

DOE locates at Mississippi Army Ammunition Plant at SSC

The United States Department of Energy (DOE), Strategic Petroleum Reserve (SPR) has recently signed a long-term contract with Mason Technologies Inc., a Day & Zimmermann Company, to occupy approximately 60,000 sq. ft. at the Mississippi Army Ammunition Plant at Stennis Space Center.

The building once used as an engineering support facility during ammunition production will be converted to warehouse space for the SPR. Improvements to meet DOE's needs will be made with funding available through the 1992 Congressional mandated Armament Retooling and Manufacturing Support Act (ARMS). The goals of the ARMS initiative include maintaining defense capabilities, reducing the Army's cost of ownership; and enhancing economic opportunities within communities surrounding the government-owned, contractor-operated plants.

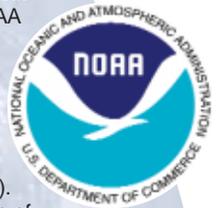
More information on the Mississippi Army Ammunition Plant is available on the Internet at www.msaap.com.

NAVSCIATTS enjoys fifth year at SSC

The Naval Small Craft Instruction and Technical Training School (NAVSCI-ATTS) enjoys its fifth year of training International Military Students in the operation, employment and maintenance of small craft at Stennis Space Center. The school offers 10 formal courses of instruction in both Spanish and English at various times throughout the year. In addition to formal instruction, the students are introduced to the benefits of a democratic society by visiting regional historical, military and cultural destinations such as the D-Day Museum, the USS Alabama and Louisiana, and Mississippi state museums. Concluding each class, the NAVSCIATTS staff hosts a sports day followed by a formal graduation ceremony where students are recognized for their academic achievements.

NOAA employees receive award

NOAA's National Data Buoy Center's Cheryl Demers and David Gilhousen were recently awarded the 2004 NOAA Administrator's Award. This prestigious award is given annually in recognition of employees or groups who have made significant contributions to NOAA Programs. Demers, NDBC's Information Technology Manager, and Gilhousen, a meteorologist worked together to create and implement the Meteorological and Oceanographic Data Exchange Module (MODEM). The implementation of MODEM resulted in an increase of more than 200,000 quality controlled observations. They attended an awards ceremony in Silver Spring, Md., and were recognized for applying information systems technology to unite existing NOAA and non-NOAA observing capabilities to improve NOAA's marine safety and environmental assessment products and services.



Cmdr. Grzeszczak takes helm of SBT-22

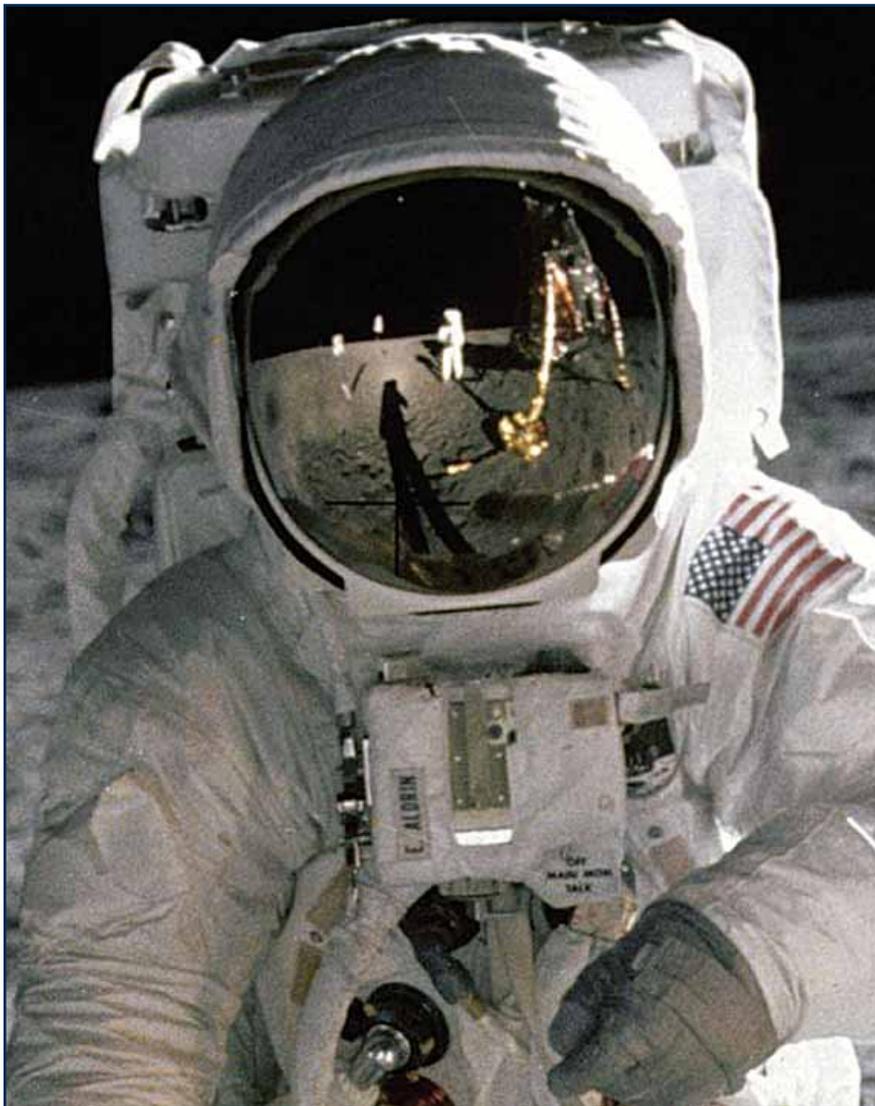
Cmdr. Steve Grzeszczak will take command of Special Boat Team TWENTY-TWO from Cmdr. Patrick Butler during a change of command ceremony scheduled for 10:00 a.m. July 30 at Stennis Space Center. Grzeszczak, a Navy SEAL and graduate of the Virginia Military Institute, finished a Joint tour of duty at Special Operations Command SOUTH, Naval Station Roosevelt Roads, Puerto Rico. Cmdr. Butler's new assignment will be Chief of Staff, Naval Special Warfare Group FOUR in Norfolk, Va.

Governor's family tours SSC



Mississippi's First Lady, Marsha Barbour (center), and son Reeves (left) toured Stennis Space Center on May 5. Their day-long site tour included placing their fingerprints on a Space Shuttle Main Engine and a visit on the Pearl River with Special Boat Team TWENTY-TWO, pictured.

One small step . . .



Apollo 11 Astronaut Neil Armstrong took this picture of Edvin "Buzz" Aldrin on the lunar surface, showing a reflection in Aldrin's visor of Armstrong and the Lunar Module.



Footprints left by the astronauts are more permanent than most structures on Earth, and will last millions of years. Photographs of the footprints were part of an experiment to study the nature of lunar dust and the effects of pressure on the lunar surface.

. . . One giant leap

The following technologies are just a few advancements that sprang from NASA's Apollo program:

- CAT scans & MRIs
- Heart pacemakers & implantable monitors
- Cordless tools
- Satellite communications
- Quartz watches
- Fire-resistant fabric
- Athletic shoe cushions



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OASIS is published quarterly by the NASA Office of External Affairs – Public Affairs at John C. Stennis Space Center.

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